

# Minutes of OTR Weekly Meeting

## March 23, 2004

**Attendees:** Scarpine, Tassotto, Lindenmeyer, Lumpkin

Discussion centered mostly on placement of OTRs in A1 line

Issues:

1) Vacuum pump window

- new vacuum port must be added to design on bottom of can
- can't use optical port since it may be needed under certain conditions
- need to have vacuum person contact

2) Beam pipe diameter

- most of A1 line uses 6" pipe
- 6" pipe interface on OTR difficult to build
- can we use 6" to 4" adapter piece?
- need to have beamline mechanical person contact

3) Where to place OTRs in A1 line?

- what are the A1 line beta functions?
- need to discuss with Lebedev and Johnson

4) Two foil complication

- two direction foils require opposite Scheimpflug condition
- either mount camera to move or abandon Scheimpflug and live with focus

5) In-situ calibration

- look into increasing optics field of view to include foil frame then put fiducial marks on frame for calibration
- how do we illuminate fiducials?
- can we add third calibration foil to spindle? Carl will look into this.

6) Aperture size

- can we reduce foil aperture from 3 1/2" to say 3". This will allow us to reduce can size to fit into tight locations.

7) Calibration/assembly stand

- where will we test and build OTRs?
- design test stand to build both top and bottom optical systems
- add alignment laser to stand

8) How long to drive video signal?

- can all signals go to one location?
- if too long a distance should we transmit over fiber? radiation problem?

9) How many total units to build?

- 3 or 4 for A1 line
- 1 for replace/testing

- 1 for TeV IPM?
- 1 for NuMI?
- 1 for e-cool?
- 1 for 8 GeV beamline research?

## Possible OTR locations

Locations 8 to 11 are on MI side of Tev-MI shield wall

Locations 1 to 6 are on Tev side of Tev\_MI shield wall

Location numbers correspond to photo numbers

### **Location #11**

- long straight section (~35') near MI end of transfer line near Quad Q903
- multiwire PM903 in this straight section
- 6" pipe



**Location #10**

- ~3' long section near Quad Q904
- no multiwire
- 6" pipe



**Location #9**

- ~25' straight section near Quad Q905
- near NuMI beamline crossover so may become crowded
- no multiwire
- 6" pipe



**Location #8**

- ~3' long section near Quad Q906 near MI side of Tev-MI shield wall
- no multiwire
- 6" pipe



**Location #1**

- ~3' long section near Quad Q907
- no multiwire
- 6" pipe



## Location #2

- ~20" section near Quad Q908
- multiwire PM908 in this section
- 6" pipe



### Location #3 & 4

- ~20" section near Quad Q909
- multiwire PM909 in this section
- 6" pipe



### Location #5

- ~20" section near Quad Q911
- no multiwire
- 4" or 6" pipe?
- very tight top and bottom - can we mount the can on it's side?



**Location #6**

- ~24' straight section near convergence of three beamlines (TeV, A1, Switchyard) near F0 lambertson magnets
- very tight top and bottom - mount can on side?
- multiwire 914 in this section

